



**Less**  
(Teaching)  
**Is**  
**More**  
(Learning)

<http://tinyurl.com/galileo13>

Sara Wilkie  
saraswilkie@mac.com

Jordy Whitmer  
jordyw@mac.com

#Itiml

- Group Challenges (starting in the middle)
- Welcome & Introductions
- Problem Solving
- F.A.I.L.ure
- Teacher Role(s) & Student Role(s)
- Less Is More – A Continuum?
- *Questioning*
- *Self Assessment*
- *Documentation & Reflection*
- *Digital Learning Farm*
- *Information Processing*
- Resources & Closing Questions

Agenda

<http://tinyurl.com/galileo13>



# Smart Challenges

---

- Join a group - need 2 teammates
- Introduce yourself
- Complete challenge in amount of time given in directions
- Join our wiki -  
<http://tinyurl.com/galileo13>



#Itiml





# Smart Challenge 1

1. Form a group of 3 *\*bonus points for groups of complete strangers!*
2. Read all directions before beginning
3. Introduce yourselves
4. Separate out the red and yellow bricks
5. Pick a timer - Make sure your group takes less than 1 minute
6. Create a duck
7. Find out who in your group has a Google account
8. Join our wiki - <http://tinyurl.com/galileo13>
9. Discuss what challenges/problems your group faced starting from step 1



#Itiml





# Smart Challenge 2

1. Form a group of 3 *\*bonus points for groups of complete strangers!*
2. Read all directions before beginning
3. Introduce yourselves
4. Imagine you have just designed a duck
5. Find a way to share/publish your duck to an audience outside this room & conference  
*\* bonus points if you get feedback*
6. Find out who in your group has a Google account
7. Join our wiki - <http://tinyurl.com/galileo13>
8. Discuss what challenges/problems your group faced starting from step 1







# Smart Challenge 3

1. Form a group of 3 *\*bonus points for groups of complete strangers!*
2. Read all directions before beginning
3. Introduce yourselves
4. Pick a timer - Make sure your group takes less than 2 minutes
5. Create the biggest structure you can balance starting w/ the Pink 1x1 brick
6. Find out who in your group has a Google account
7. Join our wiki - <http://tinyurl.com/galileo13>
8. Discuss what challenges/problems your group faced starting from step 1



#Itiml





# Smart Challenge 4

1. Form a group of 3 *\*bonus points for groups of complete strangers!*
2. Read all directions before beginning
3. Introduce yourselves
4. Pick a timer - Make sure your group takes less than 3 minutes total
5. Classify the bricks into groups (2 min)
6. Ask facilitator for missing brick
7. Classify the new brick according to your system (1 min)
8. Find out who in your group has a Google account
9. Join our wiki - <http://tinyurl.com/galileo13>
10. Discuss what challenges/problems your group faced starting from step 1



#Itiml



- Group Challenges (starting in the middle)
- **Welcome & Introductions**
- Problem Solving
- Teacher Role(s) & Student Role(s)
- FAILure
- Less Is More – A Continuum
- *Questioning*
- *Self Assessment*
- *Documentation & Reflection*
- *Digital Learning Farm*
- *Information Processing*
- Resources & Closing Questions

## Agenda

Less (Teaching) Is More (Learning)  
#Itiml





# Smart Challenges

## REFLECTION



#Itiml





# Smart Challenges

## REFLECTION

### Think

- ▶ What challenges/problems did you/your group face?
- ▶ What other challenges do students typically face in class/school?







# Smart Challenges

## REFLECTION

### Think

- ▶ What challenges/problems did you/your group face?
- ▶ What other challenges do students typically face in class/school?

### Team with Group

- ▶ How would you classify those challenges into smaller groups?







# Smart Challenges

## REFLECTION

### Think

- ▶ What challenges/problems did you/your group face?
- ▶ What other challenges do students typically face in class/school?

### Team with Group

- ▶ How would you classify those challenges into smaller groups?

### Share (Google Doc)

- ▶ How do your categories compare to the other groups?





# Crowdsourced Problem-Solving Strategies

---

## **Partner Up**

- ▶ Already a wiki member? Find someone who isn't
- ▶ Not yet a wiki member? Find someone who is

## **Read - Problem Solving wiki page**

## **Describe**

- ▶ One other technique you use for a particular category
  - ▶ How can you help kids solve more of their own problems?

*OR*

- ▶ A challenge you/your kids face
  - ▶ How could you help kids solve this sort of problem?

## **Share (Wiki Discussion)**

- ▶ post your challenges & strategies to wiki discussion area
- ▶ refresh the page to see what others have posted



# FAILure

*What happens when they don't solve the problem?*

---

- In pairs, create an acronym for F.A.I.L.
- Post your acronym to Google Form
- *Bonus Pts:* tweet your acronym
  - #Itiml
  - #fail2learn





# F.A.I.L.ure

---

- **F**irst **A**tttempt **I**s **L**earning
- **F**irst **A**tttempt, **I**terate and **L**earn





# FAILure

---

- Mindset
- Grit
- Iteration





# FAILure

---

- How much is too much, how much not enough?
- How else do we get to problem-solving, grit, and perseverance?
- How do we scaffold it?
- When do we let kids stop/quit/move on?



<http://happiness.thinktd.co.uk/files/clinging.jpg>



# Teacher Role(s)

---

What is the teachers role during this kind of learning experience?

- Think
- Pair
- Share (Google Doc)





# Student Role(s)

---

What is the students role during this kind of learning experience?

- Think
- Pair
- Share (Google Doc)





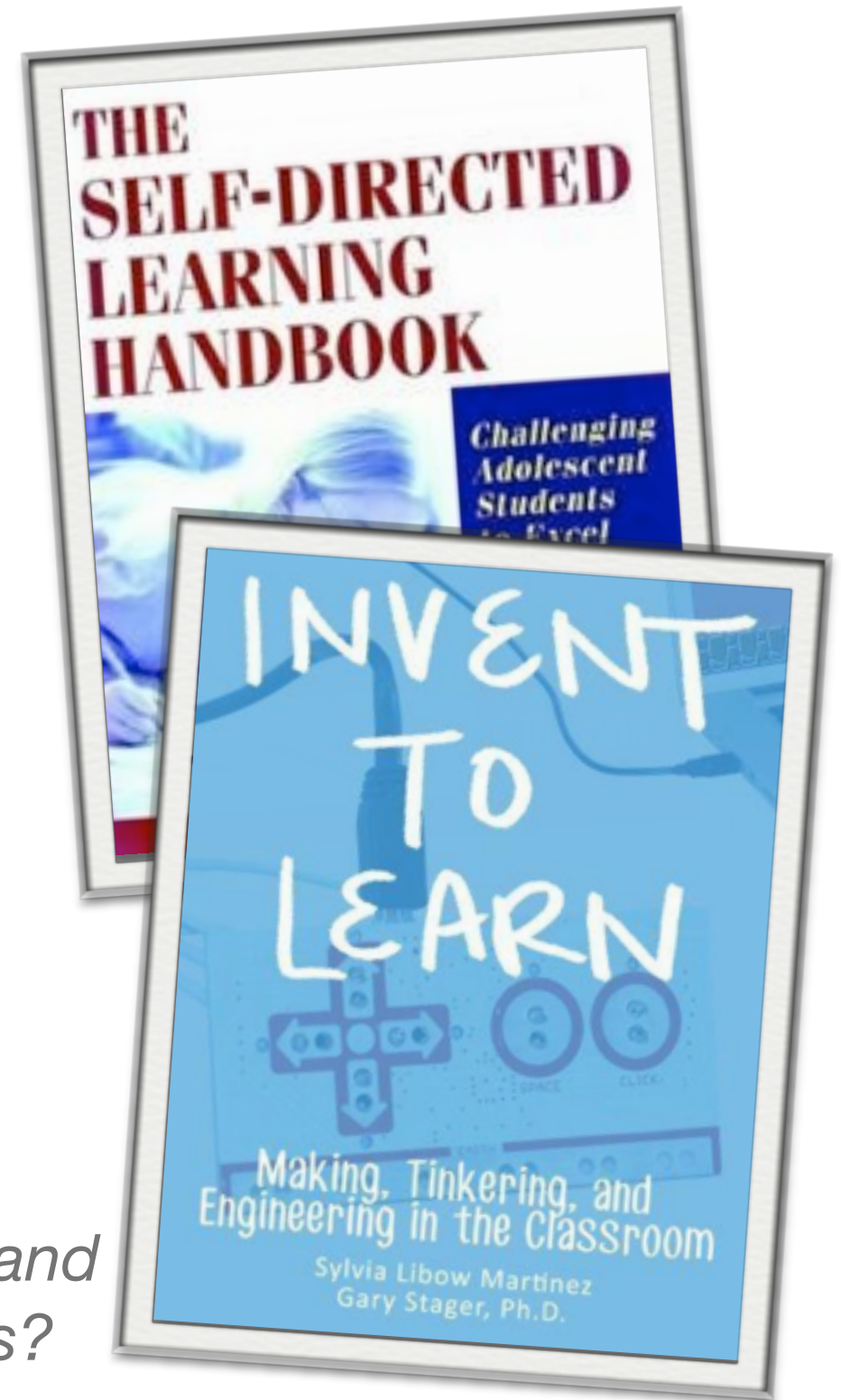
# Less Is More – A Continuum?

---

## Gradual Release of Control to Students

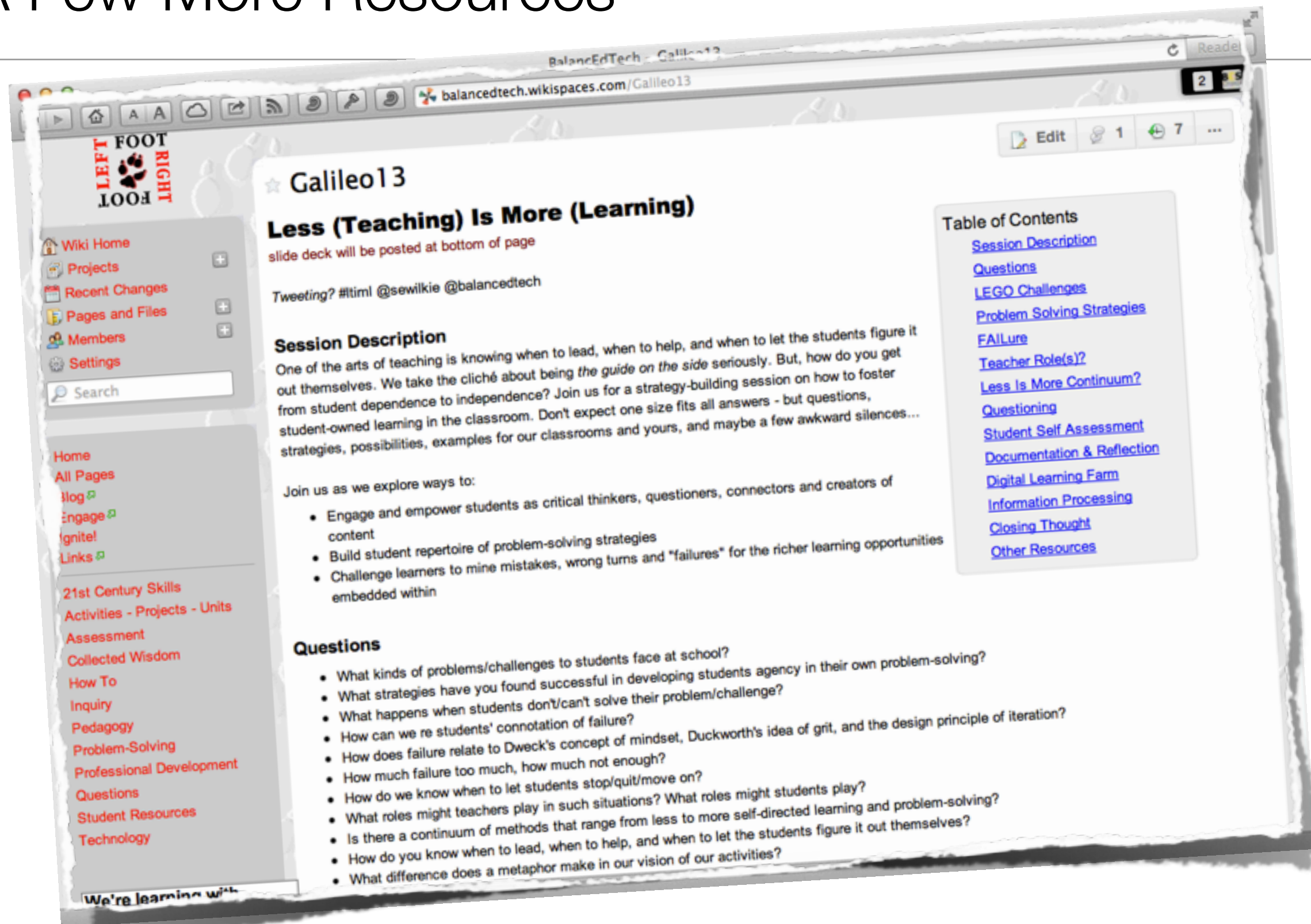
- Direct Instruction
- Guided Discovery
- Student Exploration
- Self-Directed Learning
- Autodidacts

*How do you know when to lead, when to help, and when to let the students figure it out themselves?*





# A Few More Resources





# What Difference Does A Metaphor Make?

---

- Following a guided path
- Setting up guard rails...Wide enough to empower but narrow enough to guide
- Following a set of blazes
- Following foot steps
  - Sometimes the guardrails are unnecessary or limiting. Sometimes they are freeing. *How do we know?*





# Digging Deeper

---

- How does failure relate to Dweck's concept of mindset, Duckworth's idea of grit, and the design principle of iteration?
- How much failure is too much, how much is not enough?
- How do we know when to let students stop/quit/move on?
- Is there a continuum of methods that range from less to more self-directed learning and problem-solving?
- How do you know when to lead, when to help, and when to let the students figure it out themselves?
- Do our students suffer from learned helplessness? Why? What can we do about it?
- Throughout a school year (or several years), does this approach take more time?
- How do we help learners redirect their attention from what's "expected" to what's possible?





**Less**  
(Teaching)  
**Is**  
**More**  
(Learning)

<http://tinyurl.com/galileo13>

Sara Wilkie  
saraswilkie@mac.com

Jordy Whitmer  
jordyw@mac.com

#Itiml